

ABSTRACT OF DISCLOSURE

An optical concentrator for a power generation solar cell incorporates a Fresnel lens element and a secondary non-imaging concentrating element mounted intermediate the Fresnel lens and the solar cell. The Fresnel lens focuses sunlight over the solar cell active surface when the concentrator is aligned with the sun. The secondary non-imaging concentrating element redirects sunlight from the lens including edge rays onto the solar cell surface within the periphery of the active area of the cell when the concentrator is misaligned by no more than a predetermined angle.

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